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T20 POLICY BRIEF

Task Force 01

FIGHTING INEQUALITIES, POVERTY, AND HUNGER

Investing in Digital Health Transformation in Low- and Middle-Income Countries

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Abstract

Digital health funding is a powerful catalytic investment to accelerate progress towards universal health coverage, and to improve the quality, coverage, affordability and accessibility of health services.

However, existing investments are falling short of the long-term sustainable changes needed to reduce health inequities and build stronger, more resilient health systems. Too often, investments are short-term and uncoordinated, focusing on scaling up specific digital health solutions or addressing vertical health challenges. There is also a lack of available information and transparency about existing investments, the overall need and demand for digitally-enabled health systems, and where further investments are most urgently required. Quantifying the funding need and gap is an important first step in order to improve coordination of investment and optimise funding to the areas of highest-priority.

Drawing on research and modelling by Transform Health and PATH Digital Square, this policy brief will provide an evidence-based proposal for priority investment areas and define the level of investment necessary to support the financing of equitable and sustainable digital health transformation in low and lower-middle income countries (LMICs). In addition, it will explore challenges around reporting and tracking of domestic and donor investments, including within existing mechanisms such as National Health Accounts and the OECD-DAC donor reporting system. Particular attention will be paid to the role of the new Global Initiative for Digital Health (GIDH) - catalysed by the G20 India Presidency in 2023 and identified as a priority by the Brazil Presidency in 2024 - to drive improved and better coordinated investment. The brief will include a set of actions that governments, donors and the private sector can take to increase the effectiveness of future investments and build digitally-enabled health systems that improve health outcomes for all.

Diagnosis of the Issue

Digital transformation offers the opportunity to accelerate progress towards universal health coverage (UHC), and to improve the quality, coverage, affordability and accessibility of health services. Investments in digitally-enabled health systems can improve data for decision-making and health outcomes, optimise planning, strengthen the quality and efficiency of health systems, and expand the reach and accessibility of health services to underserved populations. In the digital age, we cannot discuss the strengthening of health systems without considering the role of technology, digital tools, and data. The digital ecosystem is itself an increasingly important determinant of health.¹

As highlighted in the 2023 World Bank flagship report *Digital-in-Health: Unlocking the Value for Everyone*, “every dollar spent on health system strengthening is a partial digital dollar.” The report calls for “a digital-in-health approach” to maximise the value of technology and data, ensuring health systems deliver care that is accessible, equitable and cost-effective.²

The case for investing in digital health is clear. For example, modelling shows that Nigeria, Kenya, and South Africa—representing the three largest economies in Africa—could save 15 percent of health system costs by scaling up five digital solutions (e.g.,

¹ Kickbusch et al., "The Lancet and Financial Times Commission on Governing Health Futures 2030: Growing Up in a Digital World."

² World Bank, *Digital-in-Health: Unlocking the Value for Everyone*. Heinrichs et al., "Digitalization Impacts the COVID-19 Pandemic and the Stringency of Government Measures."

electronic health records, telehealth).³ A recent OECD report also found that investments in digital transformation can fortify the foundations of health systems, strengthen resilience to public health shocks, and contribute to stronger economies.⁴ Countries with higher levels of digital adoption prior to the COVID-19 pandemic showed a higher positive trend in their handling of the pandemic and exhibited more decisive government action, and, as a result, potentially mitigated COVID cases and deaths.⁵

However, current investments in digital health are falling short of the long-term sustainable changes needed to reduce health inequities and build stronger, more resilient health systems that can deliver UHC. *Closing the digital divide: More and better funding for the digital transformation of health* (2022)⁶ estimates that US\$ 12.5 billion is needed to support the digital transformation of health systems in 78 low- and lower-middle-income countries (LMICs) over the next five years (US\$ 2.5 billion a year on average). Health infrastructure accounts for approximately 75% of the total projected investment needed within the health sector.⁷ This cost represents only 1% of the annual government

³ McKinsey & Company, "How Digital Tools Could Boost Efficiency in African Health Systems."

⁴ OECD, *Health at a Glance 2023*.

⁵ OECD, *Health at a Glance 2023*.

⁶ Transform Health, *Closing the Digital Divide: More and Better Funding for the Digital Transformation of Health*.

⁷ This modelling analysis focuses on nine priority investment areas that were selected based on input from more than 350 global stakeholders. The analysis included five-year cost estimates for the nine-priority digital health investment areas in low- and lower-

health spending of these countries. This is a small proportional investment relative to the wider health system and would unlock further positive spillover and cost savings. In constrained fiscal environments, we project that countries should still be able to finance 60-70% of this gap, with donor funding needed to fund the rest.

In addition to shortfalls in the level of funding, investments are often short-term, uncoordinated, or focused on specific digital health solutions or addressing vertical health challenges. The many isolated pilot projects and often incompatible initiatives that have emerged in the absence of, or failing to align with, national digital health strategies and plans lead to an expensive and fragmented approach to the digitalisation of health services. Interventions may address a vertical disease area (e.g., HIV or immunisation) without connection into other service delivery tools or the wider health system, may be piloted in one geographic area but not its neighbour, or may fail to be interoperable with other digital systems in place. Short-term funding cycles and reliance on donor resources often undermine the long-term sustainability and scalability of digital health initiatives. For example, in Kenya, a total of 123 different digital transformation projects were identified, with 230 different organisations active within the country's digital health

middle income countries. The nine priority areas are Digital connectivity infrastructure; Telemedicine; Decision support; Health financing; Supply chain management; Data exchange and interoperability; Client identification and registration; Enterprise architecture, including governance, guidelines and standards for interoperability; and data and digital governance. This only includes health sector costs, not the costs to improve digital connectivity broadly.

space.⁸ In Latin America and the Caribbean, a proliferation of uncoordinated digital health projects led to unnecessary duplication of expenditures and data silos that hindered their systemic use.⁹

While there are efforts to harmonise solutions and standards, vertical solutions persist, due in part to competing interests between the government, donors, and technology vendors. National digital health strategies are one way to create more autonomy for governments leading on digital transformation while incentivizing cooperation between donors.¹⁰

Another challenge to better optimising digital health investment is that it is not clearly measured or tracked routinely or in a standard way. This makes it challenging to quantify the funding needed, make the case for resources, coordinate funding and hold different stakeholders involved in the digital health transformation accountable. Currently, there are no data sources that capture the full picture of donor and domestic digital health funding; nor is it systematically captured in national health system planning or UHC monitoring. This information—if it is captured at all—is fragmented across multiple datasets, and owners track this information in different ways. There is no standard measure or definition of what areas of investment should be included in the tracking of domestic and donor resources.

The digital health ecosystem lacks an overarching priority-setting and shared metrics of success. There is a lack of consensus about what constitutes “good” or “sufficient”

⁸ Transform Health, *Closing the Digital Divide*.

⁹ Transform Health, *Closing the Digital Divide*.

¹⁰ PATH, “A Costed Road Map to Strengthen Data Systems and Use.”



investment that will drive more equitable health outcomes and UHC progress. It is not merely an issue of tracking any digital health investment, but the right investment. Investing in digital health in a coordinated, systemic way ensures scarce funding is optimised and reduces costs in the long run.

Recommendations

Digital transformation is complex and challenging and goes beyond the remit of one single actor. We call upon G20 leaders, including Ministers of Health, Finance, Planning, and Information and Communication Technology to work together to:

1. Increase and better align funding for digital health transformation as a cross-functional enabler and accelerator of UHC rather than a siloed vertical health issue.

G20 governments must develop and commit resources for the development and implementation of costed, prioritised strategies, articulating a clear plan for the sequencing of digital health transformation. This will help ensure funding is coordinated and aligned with national priorities. As we move away from solutions-focused digital health initiatives to holistic national digital health systems, having clear and costed plans in place will ensure that stakeholders prioritise areas most in need of funding and most able to deliver health impact. These plans should be developed in an inclusive and participatory manner, through consultation with health workers at all levels of the health system alongside civil society, youth, women, and communities experiencing marginalisation, to ensure the digital health transformation responds to their needs.

Digital health strategies should promote approaches that cut across vertical health siloes. A good example is Tanzania's Digital Investment Roadmap, which identified 17 investment areas aimed at improving the entire health system, rather than a specific health domain; this has achieved a positive spillover and cost savings.¹¹

¹¹ Government of Tanzania, *Tanzania Digital Health Investment Road Map 2017-2023*.

Having these strategies in place can serve to guide national budget planning and, over time, increase public spending on the digital transformation of health systems. In support of this, civil servants and politicians should increasingly come together to recognize digital health as a central function and important enabler of UHC. Efforts to define and capture the impact of digital health for UHC will serve to continue to build the investment case and raise awareness in the right global and local audiences.

2. Promote more transparent, accountable, and effective digital health investment.

In addition to increasing investment, governments must prioritise action for better tracking, reporting and coordination of investment, while ensuring it prioritises the right areas, to optimise digital health investment to deliver UHC.

Building consensus around how both domestic and donor investments in digital health transformation should be classified would serve to better prioritise and direct donor and domestic funding, and enhance accountability through transparent reporting systems. This will provide all stakeholders with a holistic picture of investments being made in digital health, as well as where there are gaps. Resource planning and effective development of digital public infrastructure (DPI) and the enabling environment require a long-term vision of resourcing, given that these foundations often require many years

of gradual development, as seen in Rwanda,¹² and Indonesia,¹³ and India.¹⁴ Ultimately, it will give G20 leaders better data to make funding decisions in the face of budget trade-offs.

G20 governments can lead the transparent, systematic collection of information on digital health investment—a prerequisite to quantifying and closing the funding gap and directing funding to the areas of highest priority. This includes building consensus around *how* both domestic and donor investments in digital health transformation should be classified, for example, within existing mechanisms such as National Health Accounts and the Organisation for Economic Cooperation and Development's Development Assistance Committee. It should also give guidance and build consensus on *what* should be tracked, both within and outside of the health system (e.g., building on existing frameworks such as WHO-ITU eHealth strategy building blocks and the Total Cost of Ownership Tool).¹⁵

Integrating the tracking of digital health investment as part of routine processes for health systems planning and budgeting (e.g., the UHC Monitoring Report) can help to ensure that digital health investments reinforce the UHC agenda. Establishing routine and

¹² Transform Health, "Digital-First Integrated Care: Rwanda's Innovative Digital Health Care Service."

¹³ Prabowo, O. et al., "DPI for Improved Public Service: Lessons from Indonesia Integrated Smart System Platform."

¹⁴ United Nations Development Programme, *Accelerating the SDGs through Digital Public Infrastructure*.

¹⁵ PATH and Vital Wave, "Understanding Total Cost of Ownership for Digital Health".

sustainable systems for tracking budgets for digital health can also support advocates, civil society, and health workers in holding governments accountable so that funds reach the priorities and populations in need.

3. Invest in strong legislative and regulatory frameworks to guide the digital transformation of health.

Governments should prioritise the establishment of legislative and regulatory frameworks to guide the digital transformation, govern the collection and use of data, and spur responsible innovation. This would ensure the right guardrails are in place to uphold people's rights and support inclusive digital transformation and ethical Artificial Intelligence (AI) development and use.

G20 governments can support the development and endorsement (through a World Health Assembly Resolution in 2025) of a global health data governance framework that includes a model law, articulating core elements and legal guidance text. This would establish a global standard for health data legislation and regulation and serves as a resource for governments, establishing consensus across countries around core elements that should be addressed and encouraging harmonisation to facilitate cross-border data sharing.

In line with the recently adopted UNGA AI Resolution, the G20 should also make a commitment to responsible AI governance for health, working across governments and other sectors to prioritise equity and rights-based approaches. They should prioritise the collaborative implementation of global guidelines and principles into country-led regulatory systems and workflows to support the responsible development, adoption, and deployment of AI solutions in health.

Scenario of Outcomes

These three action areas build on the commitments of previous G20s, including last year's launch of the Global Initiative on Digital Health (GIDH) and a commitment from Health Ministers to support its implementation. Operationalising the GIDH offers the opportunity to drive more coordinated and impactful digital health action. G20 governments should ensure that the GIDH prioritises improving the availability and transparency of digital health funding information and better tracking of investment. The GIDH can also facilitate countries' access to and use of evidence on digital health to learn from others. Operationalising the GIDH will look different for each country; but in support of it the G20 can advocate for improved financing transparency and accountability, a shared measure of success for GIDH, and ensuring equity is at the heart of GIDH's effort to "close the digital divide."

Taken together, these action areas can catalyse more and better investment to improve the quality, coverage, affordability, and accessibility of health services and accelerate progress towards UHC.

Digital transformation is not simply about the deployment of stand-alone digital solutions or ensuring they can be technically connected. It is also about leadership to prevent digitalization from becoming a driver of inequality. Governments can show leadership by putting the work of the G20 process into action by making digital health and digital public infrastructure a permanent fixture on its agenda. The G20 has an opportunity to push for more equitable and inclusive digital transformations of health, both within G20 nations and globally. This will require dedicated, enhanced, and sustained financing, as well as more global coordination so that no country is left behind.

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